



80/297/RVC

RESULT OF VOTING ON CDV

Project number: IEC 61162-420 Ed.1	Reference number of the CDV 80/263/CDV
IEC/TC or SC TC 80	Date of circulation 2001-03-23
Title of the TC or SC concerned Maritime navigation and radiocommunication equipment and systems	

Title of the committee draft:
Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 420: Multiple talkers and multiple listeners - Ship systems interconnection - Companion standard requirements and basic companion standards

The above-mentioned document was circulated to National Committees with a request that voting take place for approval for circulation as an FDIS (or publication as a Technical Specification or Report)

Voting results

see printout attached

Comments received – see annex¹

In the case that the approval criteria for acceptance have been met,

a ☒ The committee draft for vote (CDV) will be registered as an FDIS by (date) **.2001-04**

DECISION OF THE CHAIRMAN (in cooperation with the secretariat), in the case that the approval criteria for acceptance have not been met or in the case of a draft Technical Specification or Report

b ☐ The committee draft for vote (CDV) will be published as a Technical Specification or Report by (date)

c ☐ A revised committee draft will be circulated as a committee draft for vote (CDV) by (date)

d ☐ A revised committee draft will be circulated for comment by (date)

e ☐ The committee draft and comments will be discussed at the next meeting (date)

NOTE — In the case of a proposal *b*, *c* or *d* made by the chairman, P-members objecting to such a proposal shall inform the Central Office with copy to the secretary in writing within 2 months of the circulation of this compilation (see ISO/IEC Directives, Part 1, 2.6.5).

Name or signature of the Secretary M A Rambaut	Name or signature of the Chairman Dr A Norris
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ANNEX A

Result of Voting on CDV - Document 80/263/CDV

Project: IEC 61162-420 Ed.1

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 420: Companion standard requirements and basic companion standards - Multiple talker and multiple listeners - Ship systems interconnection

Circulation Date: 2000-04-07

Closing Date: 2000-09-15

Country	Status	Sent	Received	Vote	Comments
Belgium	P	2000-09-13	2000-09-13	Y	-
Canada	P	2000-09-15	2000-09-15	A	-
China	P	2000-09-15	2000-09-15	Y	-
Denmark	P	2000-09-11	2000-09-11	N	Y
Finland	P	2000-09-12	2000-09-12	A	-
France	P	2000-09-07	2000-09-07	Y	-
Germany	P	2000-09-13	2000-09-13	Y	Y
Greece	O	2000-09-13	2000-09-13	A	-
Ireland	O	2000-09-14	2000-09-14	Y	-
Italy	P	2000-09-15	2000-09-15	Y	-
Japan	P	2000-09-08	2000-09-08	Y	-
Netherlands	P	2000-09-14	2000-09-14	Y	-
Norway	P	2000-09-08	2000-09-08	Y	Y
Portugal	-	2000-09-12	2000-09-12	A	-
Russian Fed.	P	2000-07-10	2000-07-10	Y	-
Spain	O	2000-07-06	2000-07-06	Y	-
Sweden	P	2000-09-04	2000-09-04	Y	-
U.S.A.	P	2000-09-06	2000-09-06	Y	-
United Kingdom	P	2000-08-16	2000-08-16	Y	-

		Approval Criteria	Result
P-members voting: 13			
P-members in favour: 12 = 92 %		>= 67%	APPROVED
Total votes cast: 15	Total against: 1 = 7 %	<= 25%	APPROVED
Final Decision:			APPROVED

NOTES

1 Vote: Does the National Committee agree to the circulation of the draft as a FDIS:

Y = In favour; N = Against; A = Abstention.

2 Only votes received before the closing date are counted in determining the decision.

Late Votes: (0).

3 Abstentions are not taken into account when totalizing the votes.

4 P-members not voting: Egypt; Romania; (2).

Annex

Date 2001-02-14	Document 80/263/CDV
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National Committee	Clause/ Subclause	Paragraph Figure/ Table	Type of comment (General/ Technical/Editorial)	COMMENTS	Proposed change	OBSERVATIONS OF THE SECRETARIAT on each comment submitted
DK		a	General	<p>This evaluation will use selected examples of the documents to clarify the overall impression of the standards, which is as follows:</p> <p>The document stated that IEC 61162 is not for certified, safety critical use, but is only for data collection and ship wide integration. This gives no meaning when analysing the four sub standards IEC 61162-1,2,3 and 4. Low speed and CAN bus-based fieldbusses are to be used at plant level, otherwise it has no meaning.</p> <ol style="list-style-type: none"> 1. The use of a communication protocol at plant level demands proper predictable behaviour and that the equipment is to be certified with this standard as communication interface. This is in contradiction with IEC 61162 which states it is intended to be used at plant level where regulations for behaviour exist (LR, DNV,...). 2. The IEC 61162 standard documents do not give a proper strict definition of the standard. It is not a profile document (as it should be) but a description of a proposed implementation. <p>...cont)</p>	<p>The scope must be consistant. It seems that a change in scope has taken place during the editing process (some of the detailed chapters have the scope of safety critical functions)</p>	<p>Only editorial issues and minor technical details have been changed in the document between last distribution in the WG and distribution as CDV.</p> <p>The scope section says that the protocol is to be used for integration at system level, and hence in safety related functions. However, it further states that the actual safety of a given implementation is dependent on a large number of factors of which the protocol is only one. It is ultimately up to class and other authorities to approve a specific ship or class of ships.</p>

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		b	General (cont)	<p>3. It is not possible to use the documents to design and implement the protocol because the lack of proper strict and consistent description.</p> <p>4. It is impossible to verify whether a given implementation conforms to the standard or not, based on the IEC 61162 documents.</p> <p>5. Authorities like Lloyds and Veritas normally validate integrated ship control systems. This implies very formal definitions for response times, redundant considerations and other safety related topics. In short a communication standard for use in integrated ship control systems must take this in serious consideration and offer the necessary information for legislation.</p>		

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DK		General		<p>IEC 61162-420 "Companion standard requirements"</p> <p>The document gives a description of the PISCES PCSDL Companion standard description language and the ambition is to <i>"give an unambiguous way to interpret data transmitted via the IEC 61162-401 A-profile protocol"</i>. (Section 4.1.1)</p> <p>The document lacks verification of the description language because the language itself is not available in a common definition language as BNF. The description language cannot be accepted because it is not verifiable.</p> <p>It is very unclear at which level and how the PCSDL description of a system is available.</p> <p>In section 4.1.6 page 13 the advantage of using conformance classes for manufactures is stated. This is true but because there is no language definition in the IEC 61162-420 document no validation of a description is possible. In the document a fragment of the standard is shown as in figure 4 page 21, but this is not enough. Because of the lack of A-profile documentation this document does not rely on the A-profile definition.</p> <p>A part of the "420" document is a description of the General Alarm and Monitoring functionality - named GAM. It is very unclear why it is necessary to have alarm and monitoring as a separate item in the standard because as stated in the headlines of the 61162:</p>	<p>IEC 61162 should not have its own way of describing information.</p> <p>A well-accepted standards should be used.</p>	<p>A parser has been made for the language based on a BNF description of the grammar. It was believed that this is too abstract for this kind of standard and was not included in the document. We suggest that this can be published as a technical report or similar, if the need should arise.</p> <p>Conformance classes is supported by the standard (connecting to subsets of interfaces e.g.), but has not been dealt with at this stage due to lack of concrete requests. It can be issued in a later part of the standard, e.g., 421.</p>

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DK		General		<p>In the introductory note on "400" page 1 it is stated that:</p> <p><i>IEC 61162-4 Series specifies a communication protocol for use in integrated systems. It defines a ship wide and system level integration mechanism that complements solutions provided by other parts of the IEC 61162 series. It is also expected that the IEC 61162-4 Series will be used for data acquisition by higher level, non realtime and non-critical administrative workstation and personal computers.</i></p> <p>So a GAM application should not be treated differently, but use the 61162 commands to obtain the necessary information. This is an example where narrowing a standard will prevent use in the future not predicted today. In D.7.4 page 67 specified is specified subsystems - but no one knows if this is enough.</p> <p>At page 71 in D.13 certification is mentioned. It states that certification is out of scope of this standard. The crucial thing is that the 61162 documents do not give any possibility to set up a certification as mentioned several times earlier in this evaluation.</p>		<p>The primary scope of this standard is navigation and radiocommunication. Communication with TC18 has been started to see if they want to take on other parts of the ship control systems. In any case, these issues can be covered in later parts. Certification can be made and some components of it will be dealt with in part 402 (test and documentation).</p>

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DK		General		<p>The document is NOT a profile document. It is in some way a loose description of an intended implementation of the 61162 protocol. It is nearly impossible to use the document to design an implementation of the standard, and later on analyse and verify the behaviour of an implementation/design. A standard description must be very strict and shall follow a definition paradigm (like the old JTC 1 TR 10000).</p> <p>Instead the document gives a rough overview of an internal design overview for a proposed implementation of IEC 61162. This way of describing IEC 61162 will cause a lot of problems because no profile documentation exists and therefore it is impossible to verify whether a given implementation conforms to the standard or not.</p>		<p>The 420 is not intended to be a profile document. It is a specification of certain subsystem interfaces based on the use of lower level protocols in the 61162-4 series. See also introductory comments to 400, 401 and 410.</p>
DE 1	4.1.2.3	and 5.7.1 , Annex B	Editorial	<p>“PISCES network” and “Basic PISCES Data Types” and “PISCES protocol”</p> <p>Is it possible to replace these terms? They are not described in chapter 3 “Definitions”.</p>		<p>Partly done: PISCES now included in definitions in part 400. Many occurrences of PISCES has been replaced with IEC 61162-4, but, name of foundation classes and language difficult to change due to history.</p>
NO	6.3.3	Para 1	Editorial	Misspelling ussed for used	Correct	Done
DE 3	6.3.5	and Annex E.2 E.4.1 to E.4.4	Editorial	<p>Term “NMEA” in all chapters and headings [e.g. terms NMEA sentences, NMEA messages, NMEA 0183 sentences, NMEA 0183 messages and NMEA 0183 standard, DATA TYPES NMEA, NMEA VERSION 2.1 (page 95, 98)]</p>	<p>Change reference from “NMEA” to IEC 61162-1 and change the “NMEA Version ...” accordingly to relevant Version of IEC 61162-1.</p>	<p>Partly agreed: NMEA in names internally must be kept due to historical reasons and compatibility. All other references have been changed to IEC. NMEA inserted in definitions section.</p> <p>Other editorial changes have been made to make reference to IEC 61162-1 and -2 clearer.</p>

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DE 2	Annex C	C.2.7 to C.2.15 and Annex D D.17.1 to D.17.14 and Annex E E.4.1 to E.4.4	Editorial	Is it useful to insert the "Revision History" in these paragraphs, the revision history refers to pre IEC releases and might be deleted? Some of them contain hints to companies. Is it useful to insert the "VERSION" in these paragraphs, the version refers to pre IEC releases and might be deleted?		Agreed: Only two entries giving IEC release is now in effect. NMEA documents also renumbered to 1.2 to keep in line with others (checked with PISCES/MITS secretariat). Responsibility is defined as IEC TC80/WG6.
NO	Annex C	Data type TPNNet (p48)	Technical	Wrong codes for TPN, should be 120 for IPV4	Correct	Done
NO	Annex C	Function SetControl (p58)	Technical	Input and output data types are wrong, should be CommandCode and UaStatus	Correct	Done
NO	Annex C	LNA interface description	Technical	Missing session Ids for MAUs.	Add somewhere.	Moved the MAU INA into a separate annex and changed it to reflect updated interface specification that includes session information. Added an explanation to the use of the interface.
NO	Annex D	All	Technical	With advent of VDR, one should include all relevant tags (machinery and other alarms defined by IMO) in lists in this section.	Add	Not agreed, left for later revision or other IEC work group.